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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Robert Baker, et al.	§	
		§	Group Art Unit: 2857
Serial No:	10/621,221	§	
		§	Examiner: McElheny, Jr.
Filed:	July 16, 2003	§	
		§	Attorney Docket: D9546-00004
For:	System and Method for Interpreting Repeated Surfaces	§	
		§	

**RULE 132 DECLARATION OF ROBERT BAKER**

I, Robert Baker, declare:

1. I am a named inventor on the above referenced patent application. A true and correct copy of my curriculum vitae is attached as Exhibit 1. I am a person having at least ordinary skill in the art of processing and interpreting geophysical data, and I have been such a person since at least as early as the time that the inventions claimed in the above referenced application were conceived.
2. I have reviewed the April 7, 2005 Office Action relating to the above referenced patent application as well as the prior art that is cited in that Office Action.
3. U.S. Patent 5,999,885 to Van Bemmelen does not disclose how to interpret overlapping components of a repeated surface, such as a horizon.
4. There is a long felt but unsolved need to interpret overlapping components of a repeated surface.
5. The invention described in claim 1 of the above referenced patent application solves this long felt but unresolved need.
6. The interpretation of faults and horizons are handled in fundamentally different ways in the geophysical data processing and interpretation art.

7. The most common method of interpreting faults is to pick the profile of a fault on several lines and then interpolate the surface between the profiles.
8. Horizons are typically generated with automatic extrapolation by selecting a single starting point and then laterally extrapolating this selected starting point to generate a horizon. In the geophysical data processing and interpretation art, this is referred to as "autopicking." This type of lateral extrapolation from a single picked point is not a recognized method for interpreting faults in the geophysical data processing and interpretation art.
9. Van Bemmell teaches a method to identify faults using horizons. Claim 1 of the above referenced application is directed to interpreting the overlapping components of a horizon. The fact that faults overlap is unrelated to the overlap of horizons.
10. The invention disclosed in Van Bemmell does not have the same purpose as the invention disclosed in claim 1 of the above referenced application. The disclosure in Van Bemmell would not enable a person skilled in the geophysical data processing and interpretation art to practice the inventions claimed in claims 1-13 of the above referenced invention. None of the horizons in Van Bemmell's examples overlap.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Aug 8, 2005  
Date

Robert Baker  
Robert Baker